Professional Development Communities as a Model for Staff Development Online

Dorit Maor
Murdoch University, Perth, Australia

Catherine McLoughlin
Australian Catholic University
Canberra, Australia

Abstract

In traditional approaches to professional development, much effort has been devoted to enhancement of the use of technology. However, the challenge now is to encourage the use of pedagogically-sound technologies. In this paper we discuss models of online professional development that include a 'whole of institutional approach' to staff development of online teaching skills and professional development that engages staff in reflective practice and immerses them in experiential learning online. We conclude that transformative and reflective models of online professional development are more likely to be sustainable and effective in supporting professional learning communities when introducing technological innovations in teaching.

Traditional Approaches to Professional Development

Professional development for teachers in the area of new technologies is the focus of an increased amount of attention and research. Initially, the effort was devoted to providing access to technologies; the challenges are now centered on the pedagogically-sound use of online technologies. Ttraditional paradigms of staff development are often characterised by a prescriptive or tool box approach that 'tells' how to improve practice or prescribe particular teaching practices (e.g. Palloff & Pratt, 1999, 2001, 2003; Salmon, 2000; Cahoon, 1998, 1998b; Harasim, Hiltz & Turrof, 1995; Hanna, Glowacki-Dudka & Conceição-Runlee, 2000). A common problem with traditional staff development activities is that they tend to attract the best teachers, or the early adopters or innovators, who have already espoused technology innovation in their teaching. In Australia, it was reported that staff development activities related to online teaching and learning, traditional methods of training are favoured over online methods (Ellis, O'Reilly & Debrency, 1998). The aim of this paper is to present alternative approaches to professional learning for online teaching and to emphasise the need for action learning and reflective practice models that enable practitioners to experience online teaching.

Institutional Approaches to Staff Development

Wilson & Stacey (2004) report that the adoption of new learning technologies in teaching requires staff development strategies to focus on achieving a critical mass of staff members that are competent online teachers and to enhance the institution's capability to sustain the integration of new technologies into learning and teaching practices. Some institutional approaches have deliberately drawn on Rogers' (1995) characteristics of innovation as a framework for staff development. He suggests that certain features of an innovation influence its rate of adoption (1995, pp. 250-251). His framework has been utilised by several institutions to design staff development activities. He found that the rate of adoption increased when the factors below were utilised in developing the activities. This set of simple questions assisted the staff developer to consider the 'innovation' from the eyes of the mainstream majority:

- Advantage - Does the innovation provide advantages over current ways of doing things?
- Compatibility - Is the innovation compatible with existing needs and expectations?
- Complexity - Does the innovation make life simpler or reduce complexity?

- Trialability - Can the innovation be tried without a full commitment to change current practices?
- Observability - Is the innovation observable and visible to potential adopters?

Several researchers (McLoughlin, 2000; Litchfield, 2000) have used Rogers' model to teach staff online skills and develop the appropriate pedagogies for the online environment. McLoughlin's model will be discussed later in the section on pedagogical engagement.

Reflective Practice as the Basis for Professional Development

It was Dewey (1933) who first emphasised the importance of reflection based on experience. Since then, many others have developed and expanded on the notion. The seminal works of Schön (1983, 1987, 1995) suggest that the ability to 'reflect-on-action', which is to engage in a process of continuous learning, was a crucial feature of professional practice. He was strongly against professional training models of 'Technical Rationality' — which involved giving participants materials and resources to apply later in the world of professional practice. He argued that this contradicts how professionals 'think-in-practice'.

Reflection is a key factor in improving our teaching and learning and has been emphasised by many theorists and practitioners. Schön (1983) was one of the first in his pioneering work to advocate that both 'knowing-in-practice' and 'reflection-in-practice' are innate practices and that 'reflection-on practice' is a retrospective practice. Reflective observation also became a key component of Kolb's (1984) learning cycle positioned in the second phase.

In recognition of this need, some universities now offer professional development programs in online teaching, some of which engage staff in reflective practice through experiential learning. Several approaches can be identified, moving from provision of online resources to immersion in the online experience. One example of online staff development for e-learning is provided by Lefoe (2000) which combines videoed cases studies of effective teaching across different disciplines and a website with teaching resources and support structures. Another dimension presented by Ellis & Phelps (2000) was the recognition that the transition to online teaching involved more than technological skills - it also requires change to work practices and the adoption of new pedagogies. These authors suggest a collaborative action learning model for change management, which provides opportunities for staff to learn together and share ideas and frustrations. In the model, staff members were asked to keep a reflective journal to record their experiences. However, they were not directly involved in experiential learning practices online. In contrast, O'Reilly & Ellis (2002) took the staff development process a little further and engaged participants in role play, adoption of student perspectives and immersion in the online experience. This was augmented by opportunities for reflective practice through online journaling.

Communities of Practice

The concept of communities, both communities of learners (CoL) and communities of practice (CoP), has gained increasing currency in the last few years. Since the inaugural work of Lave & Wenger (1991) on cultures and communities of learning, the notions of CoLs and CoPs have influenced learning science, management and organisational behaviour. For many institutions, the objective of designing an organizationally-contextualized module to induct staff into online teaching and to develop lecturers' teaching skills is grounded in Wenger's framework of communities of practice (Wenger 1998). A fundamental challenge posed by Wenger's theory is the notion that "*Learning cannot be designed*: it can only be designed *for* – that is, facilitated or frustrated" (Wenger 1998, p. 229). Wenger (1998) observes that communities of practice cannot be legislated or forced into existence as designable units; however, they can be recognized, supported and nurtured. Wenger contends that "practice itself is not amenable to design" and "one can design visions, but one cannot design the allegiance necessary to align energies behind those visions" (Wenger 1998, p. 229). Wenger's (1998) principle of educational alignment can be factored into professional learning might develop their understanding of their contribution to the student learning and how their local actions might contribute to the large-scale university effort. Wenger (1998) describes a learning community as offering opportunities to explore alignment in a variety of ways: through the exploration of boundaries and boundary processes, through experiences of multi-membership, by developing styles and discourses affording multiple perspectives, and through the provision of opportunities for institutional participation.

Wenger's dimensions of design and learning architectures which flow from the concepts inherent in his theory of communities of practice can be used as a design architecture for professional learning (Wenger, 1998). Different modes of belonging to a community of practice sought to be reflected in the module design. Wenger suggests that a curriculum should "look more like an itinerary of transformative experiences of participation than a list of subject matter" (Wenger, 1998, p. 272). For staff development, this means considering the incorporation of activities requiring mutual engagement, setting challenges and responsibilities, and giving sufficient support for lecturers to develop shared practices.

Technologies can also provide opportunities for the development of learning communities. The production of online resources to support professional learning depends on two kinds of affordance for negotiating meaning described by Wenger (1998) as making "sure that some artifacts are in place – tools, plans, procedures, schedules, curriculums – so that the future will have to be organized around them" (p. 231) and making "sure that the right people are at the right place in the right kind of relation to make something happen." (p. 232). Simultaneously, Wenger's (1998) principle of educational imagination demands that staff need orientation to the notion of an online community and have to be able to locate themselves within it, to reflect on their professional situation, and to allow exploration, experimentation and reinvention of themselves in the process of transforming teaching. This is similar to Schön's (1983, 1987, 1995) work on reflective practice.

Professional Learning Communities

In recent years, there has been a shift in online education towards pedagogical models that value interaction among participants, the social nature of learning, community, and reflection in practice (Varasidas & Glass, 2004, p. 4). The aim of online conferencing is to develop social networks that can be extended and sustained beyond the limited time of a conference. A professional learning community which uses online conference facilities provides time-flexible participation on a global scale, cost-effective use and supports the development of professional learning communities (Anderson & Christianson, 2004). The method that has been used to achieve the goal of online conferencing is intense network mediated interactions, which are conducted during a limited time period, usually from two days to two weeks (Anderson & Christianson, 2004). The use of synchronous and asynchronous interaction together with enabling technology opens greater opportunities for 'anytime' 'anywhere' professional development and is more cost effective than attending international conferences. Online conferences create opportunities for global communication and collaboration; and they support a wide range of professional development experiences for educator's world-wide**.**

A variation of the online conferences is the computer-mediated conference environment, which is based on the community of practice concept and was adopted by the Open University in the UK (Leach, Harrison, McCormick & Moon, 2004). The UK program used the electronic conferencing environment to emphasise the value of exchanging programs and related resources with colleagues, sharing ideas about subject teaching, as well as finding support from others in the field, however the use of online conferencing was optional. Based on Wenger's (1998) notion of mutual engagement in learning, the Open University Learning School Program was organised around three dimensions: joint enterprise, shared repertoire, and mutual engagement (Leach, Harrison, McCormick & Moon, 2004, p. 40).

A slightly different model of online conferencing was designed and used with novice and experienced teachers in Israel (Kupferberg & Ben Perez, 2004). In the virtual environment the novice and experienced teachers were presented with problem case studies and they were asked to solve these professional problems through interactive negotiation of solutions in an intensive and fruitful process of problem negotiation. The participants had the opportunity to "co-construct future worlds of possibility" (Kupferberg & Ben Perez, P. 115). The experienced teachers were prepared to share their knowledge with the novice participants, and both interacted openly in the online setting. These teachers demonstrated reflection on-action (Schön, 1983), and this particular model illustrated the potential benefit of an online forum for professional problem-solving scenarios in pre- and in-service programs.

Another example of active learning individually and collectively was a model for preparing teachers for e-teaching via e-learning based on constructivist pedagogy (Zellermayer, Mor, Heilweil, 2004). In this model the aim was to develop students' expertise in the various professional roles that they expected to perform as teachers; as learners, as users of e-learning technological tools, as co-learners, as reaffirmers or rejectors of e-learning projects and as change leaders (p. 209). This model, although not unique in its approach, encompassed a wide range of authentic roles that the teachers will have to perform in the future.

Pedagogical Engagement

The notion of educational alignment and engagement (Wegner, 1998) guided our own research projects. We now turn to this research that used pedagogical enhancement in professional development programs with tertiary lecturers in Australia and developed different strategies to engage staff professionally in their own development. One of these studies (Al-Mahmood & McLoughlin, 2004) sought to engage staff by immersing them into a particular pedagogy. This immersive approach to staff development for online teaching found that teachers gained a great deal of insight into how to transform their practice by taking a student perspective and through firsthand knowledge of learning online. Prior to this research, McLouglin (2000) used another approach based on Rogers' model referred to earlier and this became known as "a whole of institution approach" to staff development of online teaching skills. It entailed shifting the focus from customised solutions that met the needs of individual teachers to strategies that could move the mainstream majority to an adoption of an innovation. Strategies included not only teaching the technical skills required to use the software and the learning management system that distributes the learning resources to the students, but also teaching instructional design skills to help teachers adopt technology in a more meaningful way.

Another form of engagement used was to create a community of learners (Maor, 2004) so lecturers could adopt appropriate pedagogies for the online environment. Maor's professional development approach used an experiential model of the teachers as learners in a face-to-face or online discussion (a community of learners) followed by the teachers as researchers who conducted action research in their respective teaching settings (community of practice). The initial community of learners that evolved into a community of practitioners articulated a variety of ways in which they approached e-learning. Four approaches to technology integration were identified: 1. Those who enthusiastically adopted e-learning to match their constructivist approach to teaching; 2. Those who used the technology but did not extend their pedagogies to take advantage of the interactive potential of the technology; 3. Those who used a constructivist approach in their face-to-face teaching but lacked the technological knowledge and, therefore, did not use the technology for pedagogical purposes; 4. Those who remained sceptical about the use of e-learning as an interactive tool. This diverse group of lecturers reinforced the need for greater input in both pedagogical aspects such as participation, collaboration, interaction and the role of the teacher in the online environment together with increased support for fluency and competency with the use and understanding of the technology. The professional development workshops integrated practical and theoretical issues with problem-solving strategies related to pedagogical aspects. Online discussions that followed the workshops focused on the action research component. The final task involved a reflective exercise in that the lecturers were asked to construct a diagram which was intended to provide visual evidence of changes in the way they perceived, used and improved their pedagogy and technology during this one year action research project.

Best Practice in Professional Development

In summary, professional development for online teaching needs to consider the centrality of enabling teachers to become aware of how students experience e-learning and our respective research showed that this can best be achieved by involving teachers in roles where they can experience online teaching, reflect on their practice and engage in dialogue with other practitioners. This form of experiential learning triggers reflection at a deeper level and improves praxis. Thus, effective professional development for online teaching will demonstrate many of the hallmarks of what could be called a professional learning system, which has the following attributes:

- A conception of teaching as an art or profession
- Reflection
- A purpose for learning to foster a desire for change
- A sense of community
- Opportunity to experiment with and to experience ideas in action
- A variety of conceptual inputs to extend the experiences of participants
- Feedback from multiple sources to build and feed the collaborative process.

If professional teachers are to learn online about the skills of e-learning, it is important to put in place an appropropriate infrastructure and forms of experiential learning that encourage reflection, dialogue and communication. Educational technology is not, and never will be, transformative on its own. In creating professional development for tertiary teachers, authentic contexts to situate learning experiences should be integrated into these experiences to enable staff to transform their pedagogies when teaching online and to reflect on these changes.

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